

Competency-Based Education Task/Competency List

Engineering Drawing and Design

8493 – 18 Weeks

8436 – 36 Weeks

Competencies designated by bullets in the left-hand column(s) are considered essential statewide and are required of all students. In some courses, all competencies have been identified as essential. Unbulleted competencies and/or locally added competencies should be included as local conditions permit.

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Note: While the term computer-aided design (CAD) does not appear in each competency, CAD tools and software should be used extensively throughout the course.

8493 18 Wks	8436 36 Wks	Engineering Drawing and Design TASK/COMPETENCY
•	•	1. Define <i>engineering drawing</i> .
•	•	2. Investigate engineering related careers, using various resources and the Internet.
•	•	3. Use course experiences to participate in TSA as a leader, manager, or team member.
•	•	4. Apply principles of dimensioning.
•	•	5. Use English and metric measuring devices.
•	•	6. Design thread representations.
•	•	7. Prepare freehand technical sketches.
•	•	8. Design an assembly and prepare working drawings.
	•	9. Solve descriptive geometry drawings.
	•	10. Create, visualize, and analyze an object, using solid modeling.
	•	11. Prepare development drawings.
	•	12. Design mechanical, electrical, thermal, and fluid drawings.
	•	13. Prepare revolution views.

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